

WHAT IS CLAIMED IS:

5 1. An ink-jet recording system which employs an
ink-jet recording apparatus comprising a recording-
medium-holding part for a recording medium having an
ink-receiving layer on a base material and an ink-
holding part for a pigment inks to record an image on
the ink-receiving layer of the recording medium fed
from the recording-medium-holding part using the
pigment ink fed from the ink-holding part, wherein
10 (1) the ink-receiving layer of the recording medium is
a porous layer comprising alumina hydrate and a resin
binder and has a pore volume ranging from 0.1 to 1.0
ml/g; and
15 (2) the pigment ink comprises an aqueous medium, a
resin and a pigment, the particle diameter of the
pigment substantially falls within a range of from 10
to 500 nm, and the proportion of the pigment particles
having a particle diameter of 300 to 500 nm is at most
30% based on the total number of particles of the
20 pigment.

2. The ink-jet recording system according to Claim
1, wherein the BET specific surface area of the ink-
receiving layer falls within a range of from 20 to 450
25 m²/g.

3. The ink-jet recording system according to Claim

1, wherein the content of the resin contained in the pigment ink is within a range of from 0.001 to 10 % by mass based on the total mass of the ink.

5 4. The ink-jet recording system according to any one of Claims 1 to 3, wherein inks of plural colors of at least cyan, magenta and yellow are used as the pigment ink.

10 5. An ink-jet recording method comprising conducting ink-jet recording on a recording medium having an ink-receiving layer on a base material using a pigment ink to form an image, wherein
15 (1) the ink-receiving layer is a porous layer comprising alumina hydrate and a resin binder and has a pore volume ranging from 0.1 to 1.0 ml/g; and
20 (2) the pigment ink comprises an aqueous medium, a resin and a pigment, the particle diameter of the pigment substantially falls within a range of from 10 to 500 nm, and the proportion of the pigment particles having a particle diameter of 300 to 500 nm in the pigment is at most 30% based on the total number of particles of the pigment.

25 6. The ink-jet recording method according to Claim 5, wherein the BET specific surface area of the ink-

receiving layer falls within a range of from 20 to 450
m²/g.

7. The ink-jet recording method according to Claim
5, wherein the content of the resin contained in the
pigment ink is within a range of from 0.001 to 10 % by
mass based on the total mass of the ink.

8. The ink-jet recording method according to any
one of Claims 5 to 7, wherein inks of plural colors of
at least cyan, magenta and yellow are used as the
pigment ink.